

## Memorandum

Financial Services



**Date:** October 5, 2001  
**To:** Mayor and Council  
**From:** Jerry L Hart, Deputy Financial Services Manager (350-8505)  
Oliver Ncube, Deputy Public Works Manager (350-8267)  
**Subject:** Solid Waste Rate Increase

Financial Services and Public Works Field Services staff performed an analysis of the Refuse Program and determined that rate increases would be necessary in the Refuse Program to ensure full recovery of operating costs. This analysis was then presented for review to the Finance and Economic Development Committee on October 3, 2001. Staff was directed by the committee to prepare three (3) refuse rates increase options for consideration by the full Council at the October 11, 2001 IRS. The three options are as follows:

### **Option 1**

- Increase residential rates by 8.5%. This would result in a \$1.00 increase for single-family residences.
- Modify the residential, uncontained green waste collection service and some residential collection routes at estimated, annual cost savings of \$92,513.
- Increase commercial customer rates by 5%.
  - **Pros**
    - ✓ Each component of our customer base pays its' fair share of costs.
    - ✓ Tempe customers would still enjoy some of the lowest rates in the valley.
    - ✓ Any savings generated as a result of the residential service modifications would apply toward next years' rate analysis.
  - **Cons**
    - ✓ The percentage increase for residential customers would be higher than that for commercial.

### **Option 2**

- Increase residential and commercial rates by 6.75%. This would result in an \$0.80 increase for single-family residences.
  - **Pros**
    - ✓ All customers would receive the same percentage rate increase.
    - ✓ Tempe customers would still enjoy some of the lowest rates in the valley.
  - **Cons**
    - ✓ Commercial customers would be subsidizing residential customers – **this would represent a change in policy.**
    - ✓ Residential customers would not be covering their fair share of costs.
    - ✓ May lose some commercial customers.

### **Option 3**

- Modify the residential, uncontained green waste collection service and some residential collection routes at estimated, annual cost savings of \$92,513.
- This cost saving would result in a reduced residential rate increase of 7% (a \$0.85 increase) for residential customers.
- Increase commercial rates by 5%.
  - **Pros**
    - ✓ Modification of the residential, uncontained green waste collection service and some residential collection routes reduces the residential rate increase needed.
    - ✓ Uncontained refuse service would be more efficient and help the alley maintenance program.
    - ✓ Each component of our customer base pays fair share of costs.
    - ✓ Tempe customers would still enjoy some of the lowest rates in the valley.
  - **Cons**
    - ✓ The increase for residential customers would be higher than that for commercial.

We estimate that under each option, the City would generate approximately \$650,000 in additional net income for the Refuse Program on an annual basis.

Staff recommends to Council the acceptance and implementation of **Option 1**, with the new rates going into effect on November 1, 2001.

### **Option 3**

- Modify the residential, uncontained green waste collection service and some residential collection routes at estimated, annual cost savings of \$92,513.
- This cost saving would result in a reduced residential rate increase of 7% (a \$0.85 increase) for residential customers.
- Increase commercial rates by 5%.
- **Pros**
  - ✓ Modification of the residential, uncontained green waste collection service and some residential collection routes reduces the residential rate increase needed.
  - ✓ Uncontained refuse service would be more efficient and help the alley maintenance program.
  - ✓ Each component of our customer base pays fair share of costs.
  - ✓ Tempe customers would still enjoy some of the lowest rates in the valley.
- **Cons**
  - ✓ The increase for residential customers would be higher than that for commercial.

**FISCAL NOTE:** We estimate that under each option, the City would generate approximately \$650,000 in additional net income for the Refuse Program on an annual basis.

**RECOMMENDATION:** Staff recommends to Council the acceptance and implementation of **Option 1**, with the new rates going into effect on November 1, 2001.

# Memorandum



Public Works Department

Field Services Division

Date: October 5, 2001  
To: Mayor and City Council  
From: Oliver Ncube, Deputy Public Works Manager (8267)  
Thru: Glenn Kephart, Public Works Manager (8205)  
Subject: Update of City of Tempe Solid Waste Program

The Solid Waste Section of the Field Services Division is responsible for the collection, disposal and inspection of residential, commercial and uncontained solid waste.

## GOALS

- To properly collect and dispose of all contained and uncontained solid waste and green waste generated by residential customers.
- To properly collect and dispose of all solid waste generated by commercial establishments and multi-family housing units within the City.

## Residential Solid Waste and Recycling Program

- Number of Active Accounts = 34,265
- 44% of single family residential accounts receive alley and 56.5% receive curbside pick-up for solid waste once a week. The solid waste is taken to the Waste Management Incorporated Sky Harbor Transfer Station.
- Single family residential accounts receive curbside collection of commingled recyclables once a week. Materials collected under this program include newspaper, aluminum and metal cans, magazines and other paper products, cardboard and chipboard, glass food and beverage containers (brown, green and clear), and PET and HDPE plastic bottles (#1 and #2). These materials are transported to the USA CRinc plant for sorting and marketing.
- Automated side loaders are used to collect solid waste and recyclables.
- Single family residential customers with curbside collection have two 90-gallon containers. The black container is used for solid waste and the blue container is used for recyclables.
- Single family residential customers with alley collection have one blue 90-gallon container for recyclables and a 300-gallon container for every 3.2 homes for solid waste.
- The City of Tempe also provides 50 and 65 gallon blue containers for some senior citizens and residents who generate small amounts of recyclables.
- Residential collection teams operate for 10 hour a day four times a week. There is no regular collection on Wednesdays. There are currently 13 residential collection routes in Tempe.

- Number of employees = Nineteen (19) Equipment Operators and (1) supervisor

### **Commercial Solid Waste and Recycling Program**

- Number of active accounts = 2,348
- Provides collection of commercial solid waste and recyclables from Tempe businesses, apartment complexes, schools and other entities. Customers have an option to use city service or private haulers. The City competes with the private sector for customers.
- Also provides one time service to residents and business with large amounts of solid waste from construction and other projects.
- Container sizes include:
  - ⇒ Four (4), six (6) and eight (8) cubic yard front loading containers, and
  - ⇒ 15, 25, and 40 cubic yard roll-off containers
- Customers can have a full range of service ranging from daily, every other day, to weekly collection.
- Commercial solid waste service is available six (6) days a week.
- The Commercial solid waste area is also responsible for monitoring private solid waste haulers for compliance with City ordinances and the contract for collection of dead animals.
- Support services is part of the commercial solid waste and team members are responsible for maintaining all solid waste and recycling containers and the collection and marketing of recyclable material collected from the city's recycling drop off areas. They are also responsible for cleaning the solid waste fleet and collecting discarded appliances (i.e. refrigerators, stoves, water heaters, washers and dryers).
- Number of employees = three (3) Senior Equipment Operators, sixteen (16) Equipment Operators, one (1) Lead Sanitation worker, three (3) Sanitation Workers and one (1) supervisor.

### **Uncontained Solid Waste Program**

- Number of customers receiving service = 34,265 (same as residential solid waste).
- Primary function is to collect uncontained residential solid waste from alleys and streets through out the city. The street sweeping service for the City of Tempe operates under this group as well, but is funded through the High User Revenue Fund. The street sweeping function will be moving to the Transportation Division as a result of recently approved reorganization.
- Green waste recycling program was added in 1997.
- Citizens receive monthly service. The City is divided into four (4) sections and the teams work from north Tempe at the beginning of each month and spend a week collecting uncontained solid waste in each section.
- Number of employees = eighteen Equipment Operator II's, one (1) Senior Equipment Operator and a supervisor.

There is an operational imperative to pick up solid waste and recyclables on specific days in all areas of the program, without fail. This makes the program extremely sensitive to staffing levels. A single absence often requires others to work overtime to complete the routes.

### **Solid Waste Inspection Program:**

- Provide solid waste customer service including the recycling outreach program.
- Inspect alleys for code violations and work with citizens to resolve violations.
- Respond to citizen concerns on solid waste issues.
- Number of employees = three (3) Sanitation Inspectors and one (1) supervisor.

### **Current Program Status**

- Volume of solid waste collected increased from 149,394 tons in FY 1999/2000 to 158,586 in FY 2000/2001 – an increase of over 9000 tons and an operating budget impact of over \$172,000.
- Landfill fees increased in May 2001 from \$17.90 per ton to \$18.53 per ton. Additionally, the State of Arizona levies an environmental fee of \$0.25 per ton of solid waste sent to the landfill.
- During FY 2000/2001 the 61 trucks used for solid waste collection traveled 662,872 miles and used 213,925 gallons of fuel.
- Fuels costs have increased. In 1998 the average price for diesel fuel was \$0.81. Today the average price is \$1.35.
- Overtime expenditures increased as a result of employees going, on vacation, sick leave, long term disability, military leave, and to required training classes. The solid waste program has seen high overtime expenses over the last three fiscal years. The work teams and their supervisors worked very hard to ensure that the solid waste was picked up in a timely manner.
- Residential solid waste rates were last increased in 1998 from \$11.40 to \$11.75.
- Residential solid waste rate of \$11.75 in the City of Tempe is the lowest when compared to the cities of Chandler, Gilbert, Glendale, Mesa, Peoria, Phoenix, and Scottsdale.

**Table 1: Comparison of Residential Solid Waste Rates\***

<b>City</b>	<b>Rate</b>
Phoenix	\$19.20
Mesa	\$15.75/60gal - \$16.75/90gal
Scottsdale	\$14.60
Gilbert	\$14.05
Glendale	\$13.50
Peoria	\$12.49
Chandler	\$11.90
<b>Tempe</b>	<b>\$11.75</b>

\*City of Tempe staff telephone survey of local cities

- Discontinued the curbside green waste barrel program. The program was discontinued because it was not cost effective.

### **Program Improvement Strategies for the Future**

- Even out the residential solid waste collection routes. This will result in a moderate change in the collection schedule for a limited number of our citizens, but will help reduce overtime on those days with longer routes.

Estimated annual savings in overtime  $= 256 \text{ hours} \times \$20.355 \times 1.5$   
 $= \underline{\underline{\$7,816}}$

- Develop and implement a computerized routing system for solid waste collection.
- Evaluate the feasibility of automating the last two remaining hand collection areas that have resulted in industrial injuries, The Meadows and Villa Monaco.
- Evaluate the efficiency and effectiveness of green waste recycling. Currently, uncontained teams have to go over routes twice during pick up cycle – first to pick up the green waste and then to pick up bulk items. This creates a time crunch for the teams as they are committed to a monthly schedule for picking uncontained solid waste. If teams were able to go through the alleys once during the pick up cycle, they would be able to complete the daily schedule with minimal or no overtime and have enough time to leave the alleys a lot cleaner. The landfill is also requesting a revision of acceptable materials. This revision would eliminate 90% of the green waste material collected in our alleys. This includes palm fronds, tree stumps, bagged grass and branches larger than 4 inches in diameter.

In 1997, the City Council directed staff to implement this program. Staff is recommending that the green waste program be discontinued.

Estimated annual savings:

Estimated reduction in vehicle miles  $= 18,000$   
 Estimated savings in fuel cost  $= 18,000 \times \$0.42$   
 $= \underline{\underline{\$7,560}}$

Estimated reduction in vehicle maintenance cost  $= 18,000 \times \$1.30$   
 $= \underline{\underline{\$23,400}}$

Estimated savings in overtime  $= 1,760 \text{ hours} \times \$20.355 \times 1.5$   
 $= \underline{\underline{\$53,737}}$



- Develop a reserve pool of Equipment Operator II's qualified to operate solid waste trucks. Currently, working on a plan to create a promotional pool track for interested City employees who will train for the Commercial Driving License and solid waste truck operation. The solid waste program will draw from this pool of "relief" drivers. These employees will then be in a good position to compete for future Equipment Operator II vacancies. This will also help reduce overtime. The program is under development and the fiscal impact has not been determined.
- Review billing process to ensure that all customers are being billed for the level of services received. The fiscal impact is unknown.
- The Solid Waste Program has budget authorization **(\$54,000 non-recurring)** for solid waste truck signage. The goal of this program is to equip the trucks with sign brackets and interchangeable signs for promotion of City programs.

The estimated annual reduction in operational costs from adjusting the collection routes and discontinuing the uncontained green waste program is **\$92,513**. If these recommendations were implemented now, the estimated reduction in operational costs for the remainder of FY 2001 – 2002 (eight 8 months) is **\$61,675**.

Staff from the Field Services Division will be present at the Issue Review Session to answer questions.

**CITY OF TEMPE**  
**Refuse Enterprise Fund**  
**Operating Statement - Current Rates**

	<b>1998-99 Actual</b>	<b>1999-00 Actual</b>	<b>2000-01 Actual</b>	<b>2001-02 Projected</b>	<b>2002-03 Projected</b>
<b>Revenues:</b>					
User Fees	9,176,649	9,298,736	9,351,661	9,445,178	9,539,629
Recycling	62,885	185,871	168,976	171,875	171,875
Interest	125,700	116,416	70,657	500	500
Other	115,968	239,142	166,904	165,000	165,000
Total	<u>9,481,202</u>	<u>9,840,165</u>	<u>9,758,198</u>	<u>9,782,553</u>	<u>9,877,004</u>
<b>Expenses:</b>					
Personal Services	2,768,941	3,069,584	3,205,804	3,291,776	3,508,533
Landfill	2,671,444	2,703,220	2,962,911	3,060,645	3,091,417
Recycling Sorting Fee	77,996	98,146	73,240	130,267	131,588
Supplies & Services	572,347	420,601	478,125	392,063	395,455
Interest	35,950	29,605	22,862	15,699	8,087
Depreciation	791,012	996,766	1,080,155	1,100,164	1,101,802
Internal Services	2,047,202	2,385,739	2,376,766	2,567,737	2,705,354
Total	<u>8,964,892</u>	<u>9,703,661</u>	<u>10,199,863</u>	<u>10,558,351</u>	<u>10,942,236</u>
Net Income/(Loss)	516,310	136,504	(441,665)	(775,798)	(1,065,231)
Net Income/(Loss) :					
Commercial	206,854	122,558	(59,858)	(152,603)	(269,419)
Residential	309,456	13,946	(381,807)	(623,195)	(795,813)
	<u>516,310</u>	<u>136,504</u>	<u>(441,665)</u>	<u>(775,798)</u>	<u>(1,065,231)</u>

**Notes:**

- 1) In FY 1999/00, three full-time Equipment Operator II positions were added to the Residential Refuse Program. This resulted in an increase of \$109,000 to Personal Services cost and approximately \$61,000 in Depreciation annually. In Fy 2000/01, 1 part-time Equipment Operator II position was added to the Residential Refuse Program resulting in an increase of \$19,000 to Personal Services cost annually.
- 2) In FY 1999/00, one full-time Equipment Operator II position was added to the Commercial Refuse Program. This resulted in an increase of \$35,000 to Personal Services cost annually.

**CITY OF TEMPE**  
**Residential Refuse**  
**Operating Statement - Current Rates**

	1998-99 Actual	1999-00 Actual	2000-01 Actual	2001-02 Projected	2002-03 Projected
<b>Revenues:</b>					
User Fees	4,836,709	4,890,870	4,828,866	4,877,155	4,925,926
Recycling	62,885	185,871	168,976	171,875	171,875
Interest	67,878	62,865	36,742	260	260
Other	33,242	105,031	62,297	50,000	50,000
Total	5,000,714	5,244,637	5,096,881	5,099,290	5,148,061
<b>Expenses:</b>					
Personal Services	1,687,664	1,859,335	1,979,810	2,011,426	2,145,269
Landfill	937,434	969,619	1,102,075	1,159,772	1,171,535
Recycling Sorting Fee	77,996	98,146	73,240	130,267	131,588
Supplies & Services	318,296	246,390	228,128	194,932	197,145
Interest	35,950	29,605	22,862	15,699	8,087
Depreciation	487,714	645,764	724,613	727,724	727,396
Internal Services	1,146,203	1,381,832	1,347,960	1,482,665	1,562,854
Total	4,691,258	5,230,691	5,478,688	5,722,485	5,943,874
Net income/(loss)	309,456	13,946	(381,807)	(623,195)	(795,813)
Actual Recovery Rate:	107%	100%	93%	89%	87%
Policy Recovery Rate:	100%	100%	100%	100%	100%

**Notes:**

- 1) In FY 1999/00, three full-time Equipment Operator II positions were added to the Residential Refuse Program. This resulted in an increase of \$109,000 to Personal Services cost and approximately \$61,000 in Depreciation annually. In FY 2000/01, 1 part-time Equipment Operator II position was added to the Residential Refuse Program resulting in an increase of \$19,000 to Personal Services cost annually.

**CITY OF TEMPE**  
**Commercial Refuse**  
**Operating Statement - Current Rates**

	<b>1998-99 Actual</b>	<b>1999-00 Actual</b>	<b>2000-01 Actual</b>	<b>2001-02 Projected</b>	<b>2002-03 Projected</b>
<b>Revenues:</b>					
User Fees	4,339,940	4,407,866	4,522,795	4,568,023	4,613,703
Interest	57,822	53,551	33,915	240	240
Other	82,726	134,111	104,607	115,000	115,000
Total	<u>4,480,488</u>	<u>4,595,528</u>	<u>4,661,317</u>	<u>4,683,263</u>	<u>4,728,943</u>
<b>Expenses:</b>					
Personal Services	1,081,278	1,210,249	1,225,994	1,280,350	1,363,264
Landfill	1,734,010	1,733,601	1,860,836	1,900,873	1,919,882
Supplies & Services	254,051	174,211	249,997	197,131	198,310
Interest	0	0	0	0	0
Depreciation	303,297	351,002	355,542	372,440	374,406
Internal Services	900,998	1,003,907	1,028,806	1,085,072	1,142,500
Total	<u>4,273,634</u>	<u>4,472,970</u>	<u>4,721,175</u>	<u>4,835,866</u>	<u>4,998,362</u>
Net income/(loss)	<u>206,854</u>	<u>122,558</u>	<u>(59,858)</u>	<u>(152,603)</u>	<u>(269,419)</u>
 Actual Recovery Rate:	105%	103%	99%	97%	95%
Policy Recovery Rate:	100%	100%	100%	100%	100%

**Notes:**

- 1) In FY 1999/00, one full-time Equipment Operator II position was added to the Commercial Refuse Program. This resulted in an increase of \$35,000 to Personal Services cost annually.

## **RESIDENTIAL REFUSE RATES**

Phoenix	Residential: \$19.20 Includes 1 refuse/1 recycle p/u per week Add'l Cont.: \$ 9.60 White Goods \$10.00 per trip 2x per week collection \$19.20
Mesa	Residential: \$15.75/60-gallon refuse container \$16.75/90-gallon refuse container Add'l Cont.: \$6/mo. 2 <sup>nd</sup> p/u per week: \$11/mo. Green waste cont.: \$3.50/mo. Appliance collection \$10.00 fee Bulk Item collection \$10.00 fee per service
Scottsdale	Residential: \$14.60 Includes 1 refuse/1 recycle p/u per week (Also, moving box p/u and white good p/u upon request) Add'l Cont. \$86.10 to purchase 7 mo. for add'l barrel collection 2x per week collection not available
Gilbert	Residential: \$14.05 Includes 1 refuse/1 recycle p/u per week (Also, appliance p/u on Thursdays, moving box p/u on Fridays, and once-a-month bulky item p/u) Add'l Cont. \$ 7.15 2x per week collection not available
Glendale	Residential: \$13.50 Includes 1 refuse/1 recycle p/u per week (Also includes once-a-month uncontained trash p/u and annual spring cleanup service) Add'l Cont.: \$ 5.41 2x per week collection \$10.82 New account opening & delivery charge \$28.00
Peoria	Residential: \$12.49 2 containers \$22.04 3 containers \$31.59 Includes 1 time box p/u per resident and once-a-year large item p/u Special large item p/u: \$12.50/fifteen mins. No recycling
Chandler	Residential: \$11.90 Includes 1 refuse/1 recycle p/u per week

(Also includes once every 8 weeks bulky item p/u  
and unlimited free dumps at the landfill)

Add'l Cont. \$ 5.00

Tempe

Residential: \$11.75

Includes 1 refuse/1 recycle p/u per week

(Also includes once-a-month uncontained p/u  
and once-a-month free dump at Transfer Station)

Add'l Cont.: \$ 4.45

Second p/u per week: \$ 4.35

Tucson

No user fee – funded through general fund. The cost to the city is  
\$14.09 per month.

CITY	RATE
PHOENIX	\$19.20
MESA	\$15.75/60gal - \$16.75/90gal
SCOTTSDALE	\$14.60
GILBERT	\$14.05
GLENDALE	\$13.50
PEORIA	\$12.49
CHANDLER	\$11.90
TEMPE - CURRENT	\$11.75
TEMPE – OPTION 1	\$12.75
TEMPE – OPTION 2	\$12.55
TEMPE – OPTION 3	\$12.60

## Single Family Refuse Fees: Historical Review of Rate Increases

Chronology of Rate Increases	Monthly Charge	Percent Change
06/65	2.00	
06/74	3.00	50%
05/80	4.50	50
02/82	5.50	22
01/83	6.00	9
11/85	6.95	16
03/91	8.45	22
05/92	10.40	23
02/93	11.40	10
01/98	11.75	3

### Commercial Service Providers

Service Comparison By Example	Glendale	Tempe	Waste Mang.	Scottsdale	Mesa	Peoria	Gilbert	Chandler	Phoenix
4 yard dumped 1x / week	\$38.30	\$41.00	\$49.62	\$67.00	\$76.00	N/A	*	*	*
4 yard dumped 2x / week	\$76.50	\$82.00	\$99.62	\$87.00	\$129.20	\$97.35	*	*	*
4 yard dumped 3x / week	\$114.00	\$123.00	\$149.62	\$107.00	\$182.40	\$143.61	*	*	*
4 yard dumped 4x / week	\$152.70	\$164.00	\$199.62	\$127.00	\$266.00	\$189.87	*	*	*
6 yard dumped 1x / week	\$56.45	\$45.40	\$56.76	\$73.00	\$80.00	N/A	*	*	*
6 yard dumped 2x / week	\$104.55	\$90.80	\$111.76	\$93.00	\$136.00	\$113.19	*	*	*
6 yard dumped 3x / week	\$149.05	\$136.20	\$166.76	\$113.00	\$192.00	\$167.27	*	*	*
6 yard dumped 4x / week	\$207.15	\$181.60	\$221.76	\$133.00	\$280.00	\$221.35	*	*	*
8 yard dumped 1x / week	\$71.40	\$51.30	\$64.98	\$79.00	\$90.00	N/A	*	*	*
8 yard dumped 2x / week	\$137.65	\$102.60	\$129.98	\$99.00	\$153.00	\$128.96	*	*	*
8 yard dumped 3x / week	\$196.40	\$153.90	\$194.98	\$119.00	\$216.00	\$190.87	*	*	*
8 yard dumped 4x / week	\$272.35	\$205.20	\$259.98	\$139.00	\$315.00	\$252.77	*	*	*
15-20 cu. Yard one dump w/ 5 tons	\$234.25	\$152.78	N/A	\$213.25		\$294.35	\$256.98	*	*
25-30 cu. Yard one dump w/ 5 tons	\$234.25	\$165.00	N/A	\$238.25		\$294.35	N/A	*	*
40 cu. Yard one dump w/ 5 tons	\$234.25	\$196.00	N/A	\$258.25		\$294.35	\$256.98	*	*

\*Commercial Solid Waste Collection Services Provided By Private Businesses Fees Vary Greatly for Services.